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# GPS-BT77

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## High Performance High Sensitivity GPS Bluetooth® Receiver

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### GENERAL DESCRIPTION

GPS-BT77 Bluetooth GPS receiver, a total solution of GPS Bluetooth wireless technology, is dedicated design for the user who is usually carry the portable device such as PDAs/smart phones all the time. GPS-BT77 allows from 27 hours continuous use to stand-by time up to one week with a single battery charge. GPS-BT77 Bluetooth GPS receiver works to all Bluetooth smart phones, lap-top, PDA regardless of brand in an operating range of more than 10 meters. The high performance high sensitivity GPS-BT77 is an ideal receiver to be used in any strict weather condition, so to easily find your way.

### APPLICATIONS

- Automotive
- Fleet management/Asset tracking
- Personal/Portable Navigation (PDA, Pocket PC etc.)
- Location Based Services enabled devices
- Sports and Recreation
- Geographic Surveying

### KEY PRODUCT FEATURES

- 16 channels "All-In-View" tracking
- Cold/Warm/Hot start time: 45/38/6 sec. (average)
- Superior sensitivity: -152dBm tracking
- Reacquisition time: 1 sec.
- Build-in ceramic patch antenna
- Build-in rechargeable Li-ion battery
- Support standard NMEA-0183 at 38400 bps baud rate
- Compatible with Bluetooth devices with Serial Port Profile (SPP)
- Ultra low power consumption: 27 hours continuous use to stand-by time up to one week by 950mAh battery
- Time to full recharge: within 3 hours
- 3 LEDs display all GPS, Bluetooth and power status
- Size: 83.5 (L) X 43.7 (W) X 23.2 (H) mm
- Weight: 72g (battery included)
- Non-slip back pad for a secure placement

## SPECIFICATIONS

### GPS Features

|           |  |
|-----------|--|
| Chipset   | Nemerix  |
| Frequency | L1, 1575.42MHz   |
| C/A Code  | 1.023MHz chip rate                                       |
| Channels  | 16 channels "all-in-view" tracking                       |
| Antenna   | Built-in low noise antenna<br>External MMCX antenna port |

### Datum

WGS-84

### Dynamic Conditions

|               |                           |
|---------------|---------------------------|
| Altitude      | <18,000 m (60,000feet)    |
| Velocity      | <515 m/s (1000 knots)     |
| Acceleration  | <4G                       |
| Motional Jerk | 20m/sec <sup>3</sup> max. |

### Sensitivity

To – 152dBm Tracking, Superior Urban Canyon Performance

### Time to First Fix (TTFF)

|               |                |
|---------------|----------------|
| Cold Start    | 45sec, average |
| Warm Start    | 38sec, average |
| Hot Start     | 6sec, average  |
| Reacquisition | 1sec           |
| Update rate   | 1Hz (max.)     |

### Accuracy

|          |                                 |
|----------|---------------------------------|
| Position | 5m CEP (50%), 9m (90%)          |
| Velocity | 0.1m/sec, without SA            |
| Time     | ±100ns synchronized to GPS time |

### Power

|   |  |
|---|--|
| Built-in rechargeable 950mAh Li-ion battery and 5V DC input |  |
| Operation Current   | 35mA (Typical)                           |
| Operation Time  | 27hrs, fully charged, in continuous mode |
| Charging time   | 3.0hrs. (Typical)                        |

### Interface

Communication Protocol: Communicate with host platform via Bluetooth (class 2) serial port profile  
 Bluetooth communication distance 10meters (Typical)  
 Default: NMEA-0183 (V3.01) – GGA(1), GSA(3), GSV(3), RMC(1),VTG(1), baud rate 38400 bps  
 Data bit: 8, stop bit, 1 (Default)\*

### Device Size and Weight

83.5 (L) X 43.7 (W) X 23.2 (H) mm  
 3.29 (L) X 1.72 (W) X 0.91 (H) inch  
 72g (battery included)

### Accessories

Car charger (12V in, 5V output)  
 AC adaptor (5.3V output, 500mA)

### Environmental Characteristics

Operating Temperature - 10°C to + 60°C  
 Storage Temperature - 20°C to + 85°C

\*: (1): 1sec output 1msg, (3): 3sec output 1msg

*All specifications are subject to change without notice*